



## **Air Quality Permitting Statement of Basis**

**July 2, 2007**

**Permit to Construct No. P-2007.0073**

**J. R. Simplot, Food Group, Caldwell Facility  
Caldwell, ID**

**Facility ID No. 029-00009**

**Prepared by:**

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Air Quality Division**

**PROPOSED FOR PUBLIC COMMENT**

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## Acronyms, Units, and Chemical Nomenclatures

AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
O <sub>3</sub>	ozone
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
SO <sub>2</sub>	sulfur dioxide
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound
WESP	wet electrostatic precipitator

## 1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

## 2. FACILITY DESCRIPTION

J. R. Simplot, Food Group, Caldwell facility (Simplot) produces pre-fried French fries, pre-formed and pre-fried potato products, and other processed potato products.

## 3. FACILITY / AREA CLASSIFICATION

This facility is not a major facility as defined by IDAPA 58.01.01.205 because its potential to emit is limited to less than 250 T/yr of a regulated NSR pollutant. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The facility is classified as a major facility for Tier I operating permit requirements, in accordance with IDAPA 58.01.01.008.10, because it emits or has the potential to emit a regulated air pollutant above a Tier I operating permit major source threshold. The SIC code defining the facility is 2037, *Frozen Fruits, Fruits Juices and Vegetables*. The AIRS classification is "A."

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Canyon County which is classified as unclassifiable for all criteria pollutants (PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, lead, and ozone). There are no Class I areas within 10 km of the facility.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Simplot. This required information is entered into the EPA AIRS database.

## 4. APPLICATION SCOPE

Simplot has submitted a PTC application to remove the Line 4 dryer and replace the Line 4 French fry potato fryer with a Line 4 pre-formed potato fryer. The emissions from the new Line 4 pre-formed potato fryer will pass through the wet electrostatic precipitator (WESP). The WESP was installed in 2000. The monitoring and recordkeeping requirements for the WESP were established in PTC No. P-050016 issued December 22, 2005. Emissions do not increase as a result of this permit issuance.

### 4.1 Application Chronology

April 30, 2007	DEQ received the 15-day PTC application
May 4, 2007	DEQ declared the 15-day PTC application complete

## 5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action:

## **5.1 Equipment Listing**

The description of the new Line 4 pre-formed fryer is:

Manufacturer:	Gem Equipment Company
Model:	Preformed Fryer
Maximum Capacity:	10,800 pound of product/hour
Installation date:	June 2007

Description of the emission control equipment for the Line 4 preformed fryer is:

Identification:	Wet Electrostatic Precipitator
Installation date:	2000
Manufacturer:	GeoEnergy International Corporation
Model:	E-Tube Model

## **5.2 Emissions Inventory**

This permitting action is to remove the Line 4 dryer and Line 4 French fry potato fryer and install a new Line 4 pre-formed potato fryer. The emission limits for Line 4 in the existing Tier I operating permit T1-050013 issued on January 17, 2007, are based on process weight limitations, in other words, process throughput. This permit modification changes (reduces) the process throughput; therefore, this PTC revision does not result in an increase of the allowable emissions limits and an updated emissions inventory is not required. The PTE would not be increased, thus an emission inventory was not required.

Using the process weight formula with the application requested throughput the uncontrolled emission rate is determined to be 11.8 lb/hr of PM. The facility is requesting an emission rate of 5.1 lb/hr of PM for the throughput rate of 10,800 pounds per hour of finished potato product. The application states the emissions from the Line 4 pre-formed fryer are to pass through a WESP. This permit requires the emissions from the Line 4 pre-formed fryer to pass through the WESP.

It should be noted that Tier I Operating Permit No. 027-00009, issued October 4, 2002, required that Simplot conduct a performance test on the Line 1 fryer to demonstrate compliance with the short-term PM emissions limit of 10.88 lb/hr. Simplot conducted the test on September 18, 2003, to satisfy the testing requirement. The results of the test show that the average PM emissions rate measured during the test was 1.98 lb/hr (the maximum being 2.24 lb/hr) at a production rate of 9,207 lb/hr of finished potato product. DEQ approved the test as a demonstration of compliance with the permit limit.

The application for the Line 4 preformed fryer request a production rate of 10,800 lb/hr. The performance test of September 18, 2003, on Line 1 fryer has indicated the final emission rate was 18% of the PM emissions established by process weight for the production of 9.207 lb/hr of finished potato product. Assuming the same reduction efficiency because the Line 4 preformed fryer's emissions will be going in to the same WESP, the estimated actual PM emissions equate to 2.13 lb/hr ( $11.8 \times 18\%$ ) of the PM emissions for a production rate of 10,800 lb/hr of finished potato product. The 2.13 lb/hr emission rate is only 42% of the permitted limit of 5.1 lb/hr of PM. Because Simplot if operating at the maximum throughput of 10,800 lb/hr of finished potato product the emissions of PM from the WESP would be estimated at only 42% of the permitted hourly limit of 5.1 lb/hr, the production limit is on an annual basis and not on a short-term basis.

### 5.3 **Modeling**

This permitting action has the emissions from the new pre-formed Line 4 fryer passing through the same air pollution control device as the French fries fryer that was removed. There is no emissions increase due to this permit revision. Therefore, modeling is not required.

### 5.4 **Regulatory Review**

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

#### IDAPA 58.01.01.201.....Permit to Construct Required

The facility's application requests the installation of a new pre-formed potato fryer. The facility's proposed project does not meet the permit to construct exemption criteria contained in Sections 220 through 223 of the Rules. Therefore, a PTC is required.

#### IDAPA 58.01.01.203.....Permit Requirements for New and Modified Stationary Sources

The applicant has shown to the satisfaction of DEQ that the facility will comply with all applicable emissions standards, ambient air quality standards, and toxic increments.

#### IDAPA 58.01.01.210.....Demonstration of Preconstruction Compliance with Toxic Standards

The applicant has demonstrated preconstruction compliance for all TAPs identified in the permit application.

#### IDAPA 58.01.01.213.....Pre-Permit Construction

The applicant has demonstrated compliance with the 15-day preconstruction requirements.

#### IDAPA 58.01.01.224.....Permit to Construct Application Fee

The applicant satisfied the PTC application fee requirement by submitting a fee of \$1,000.00 at the time the original application was submitted, April 30, 2007.

#### IDAPA 58.01.01.225.....Permit to Construct Processing Fee

The total emissions from the proposed new Line 4 dryer indicate no increase in emissions for the facility; Minimal engineering was required for this permit revision; therefore, the applicable processing fee is \$1,000.00. No permit to construct can be issued without first paying the required processing fee.

### 5.5 **Permit Conditions Review**

This section describes only those permit conditions that have been revised, modified or deleted as a result of this permit action. All other permit conditions remain unchanged.

This permit establishes conditions for the new pre-formed potato fryer in Line 4. Previously Line 4 was permitted under the conditions of process weight rate within the facility's Tier I permit. Therefore all the conditions established within this permits regarding the performance and emissions of the Line 4 operation are new conditions.

5.5.1 Permit Condition 2.1 and 2.2 in the PTC contain information on the process description and the emissions control. They added to the PTC as new permit conditions.

5.5.2 Permit Condition 2.3 contains the emission limit for PM/PM<sub>10</sub> for the Line 4 fryer. This is the initial Permit to Construct for Line 4.

- 5.5.3 Permit Condition 2.4 contains the opacity limit leaving the WESP that remains unchanged from the Tier I permit.
- 5.5.4 Permit Condition 2.5 contains the reduced throughput in the change from a French fry fryer to the pre-formed potato fryer.
- 5.5.5 Permit Conditions 2.6 and 2.7 contain the WESP conditions and monitoring that shall have been established through other permitting actions.
- 5.5.6 Permit Condition 2.8 contain the monitoring of the reduced annual throughput limit to demonstrate compliance with Permit Condition 2.5.

## **6. PERMIT FEES**

Simplot submitted a \$1,000 PTC application fee on April 30, 2007, in accordance with IDAPA 58.01.01.224. Minimal engineering was required for this permit revision; therefore, the applicable processing fee is \$1,000.00. No permit to construct can be issued without first paying the required processing fee.

## **7. PERMIT REVIEW**

### **7.1 *Regional Review of Draft Permit***

The draft permit was made available for regional office review on July 2, 2007.

### **7.2 *Facility Review of Draft Permit***

The draft permit was made available for facility review on July 2, 2007.

### **7.3 *Public Comment***

An opportunity for public comment period on the PTC application will be provided in accordance with IDAPA 58.01.01.209.05.c.

## **8. RECOMMENDATION**

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommend that J.R. Simplot be issued draft PTC No. 2007.0073 for the removal of Line 4 dryer and the replacement of the Line 4 French fry potato fryer with a Line 4 per-formed potato fryer. A public comment period is recommended and the project does not involve PSD requirements.

REB/slm      Permit No. P-2007.0073

## **Appendix A**

### **AIRS Information**

**P-2007.0073**

## **AIRS/AFS<sup>a</sup> FACILITY-WIDE CLASSIFICATION<sup>b</sup> DATA ENTRY FORM**

**Facility Name:** J. R. Simplot Company  
**Facility Location:** P.O. Box 1059, Caldwell, Idaho 83606  
**AIRS Number:** 027-00009

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO <sub>2</sub>	B						B	U
NO <sub>x</sub>	A						A	U
CO	A						A	U
PM <sub>10</sub>	A						A	U
PT (Particulate)	A						A	U
VOC	B						B	U
THAP (Total HAPs)								
			APPLICABLE SUBPART					

<sup>a</sup> Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

<sup>b</sup> AIRS/AFS Classification Codes:

- A** = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM** = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B** = Actual and potential emissions below all applicable major source thresholds.
- C** = Class is unknown.
- ND** = Major source thresholds are not defined (e.g., radionuclides).